



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,454	02/18/2004	Corey W. Bucher	013002-9052-01	1757

23409 7590 11/16/2004

MICHAEL BEST & FRIEDRICH, LLP
100 E WISCONSIN AVENUE
MILWAUKEE, WI 53202

EXAMINER

TORRES, ALICIA M

ART UNIT PAPER NUMBER

3671

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,454

Applicant(s)

BUCHER, COREY W.

Examiner

Alicia M Torres

Art Unit

3671



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/18/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-31 is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5/21/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Drawings

1. The drawings are objected to because the lead line from reference number “38” should point to the control levers in Figure 1. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show shaft “44”, PTO “48”, pulley “52”, and the belt “56”, slope “S”, tilt angle “A”, horizontal plane “H” as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number

of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

DETAILED ACTION

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rich in view of the Auto Mower from Husqvarna.

Rich discloses a riding lawnmower (10) comprising:

a frame (14);

an engine (12) supported by the frame (14);

a mower deck (16) supported by the frame (14);

Art Unit: 3671

a rotating cutting blade (not shown) disposed below the mower deck (16);

a PTO (see column 6, lines 28-31) coupling the engine (12) and the rotating cutting blade to rotationally drive the cutting blade;

a drive system (see column 6, lines 36-40) connected to the frame (14) and coupled to the engine (12) for driving the lawnmower (10), as per claim 1; and

wherein the drive system includes two independently controlled drive wheels (18, see column 1, lines 24-27), as per claim 2.

However, Rich fails to disclose a tilt sensor for sensing a tilt angle representing the orientation of the lawnmower with respect to a horizontal level plane, the PTO being disengaging from the engine to stop rotation of the cutting blade when the tilt angle exceeds a pre-determined limit angle, the drive system remaining operable to drive the lawnmower when the PTO is disengaged to stop rotation of the cutting blade.

Husqvarna discloses in the Auto Mower, a tilt sensor for sensing a tilt angle representing the orientation of the lawnmower with respect to a horizontal level plane, the PTO being disengaging from the engine to stop rotation of the cutting blade when the tilt angle exceeds a pre-determined limit angle, the drive system remaining operable to drive the lawnmower when the PTO is disengaged to stop rotation of the cutting blade (see the enclosed www.PopularMechanics.com article, page 4/5, the paragraph beginning "Under the hood, the Auto Mower...").

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the tilt sensor on the Auto Mower of Husqvarna on the mower of Rich in order to prevent anyone from getting cut from the blade.

Art Unit: 3671

Allowable Subject Matter

5. Claims 3-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 16-31 are allowed.

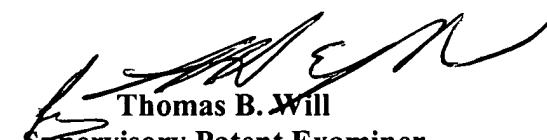
Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Duncan, Schroeder, and Angott et al. have been cited as of interest.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Torres whose telephone number is 703-305-6953. The examiner can normally be reached Monday through Thursday from 7:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached at 703-308-3870.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is 703-305-1113. The fax number for this Group is 703-872-9306.


Thomas B. Will
Supervisory Patent Examiner
Group Art Unit 3671

AMT
November 10, 2004